OIPE
OCT 07 2005
PATENT & TRADEMARK OFFICE

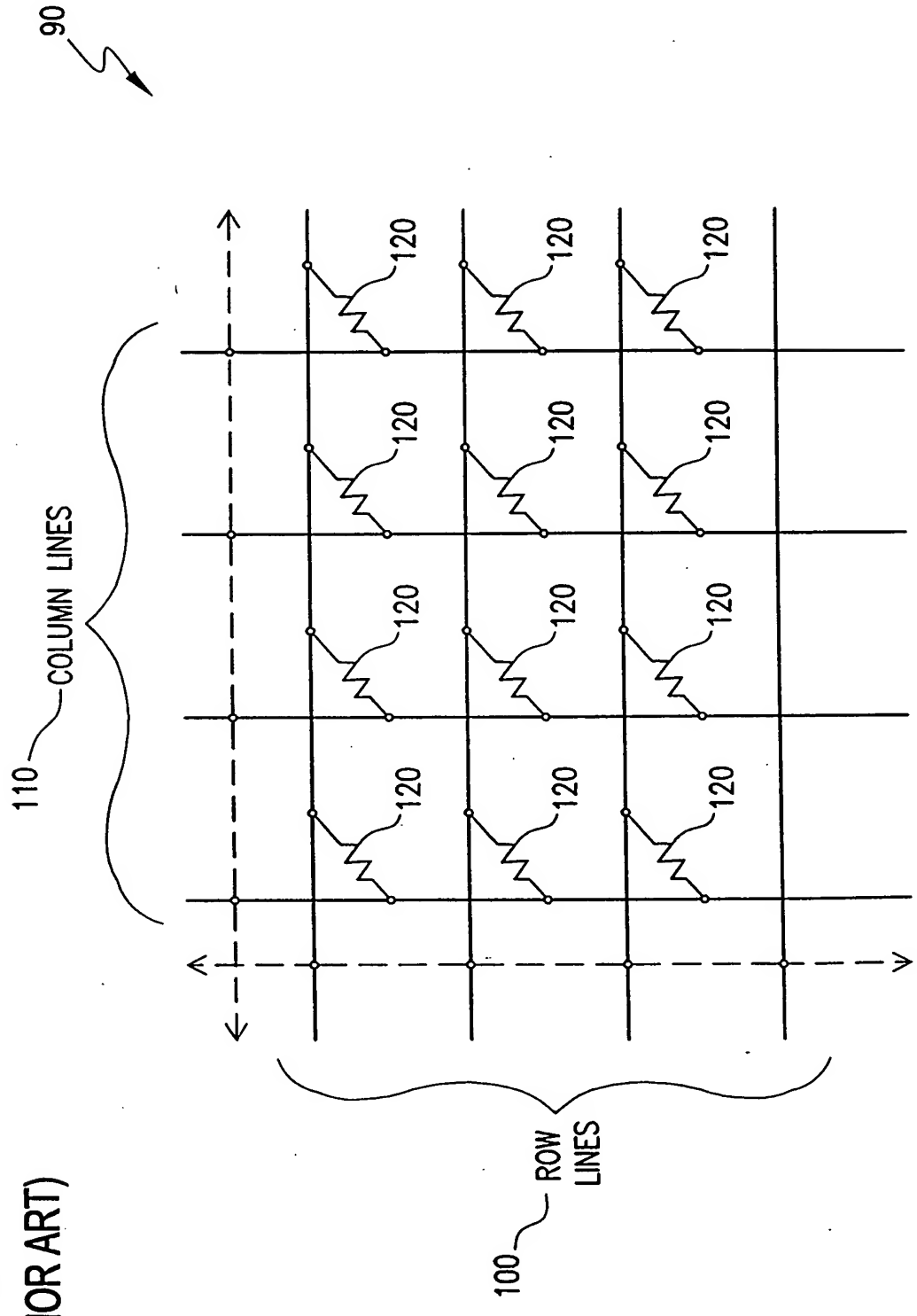


FIG. 1
(PRIOR ART)

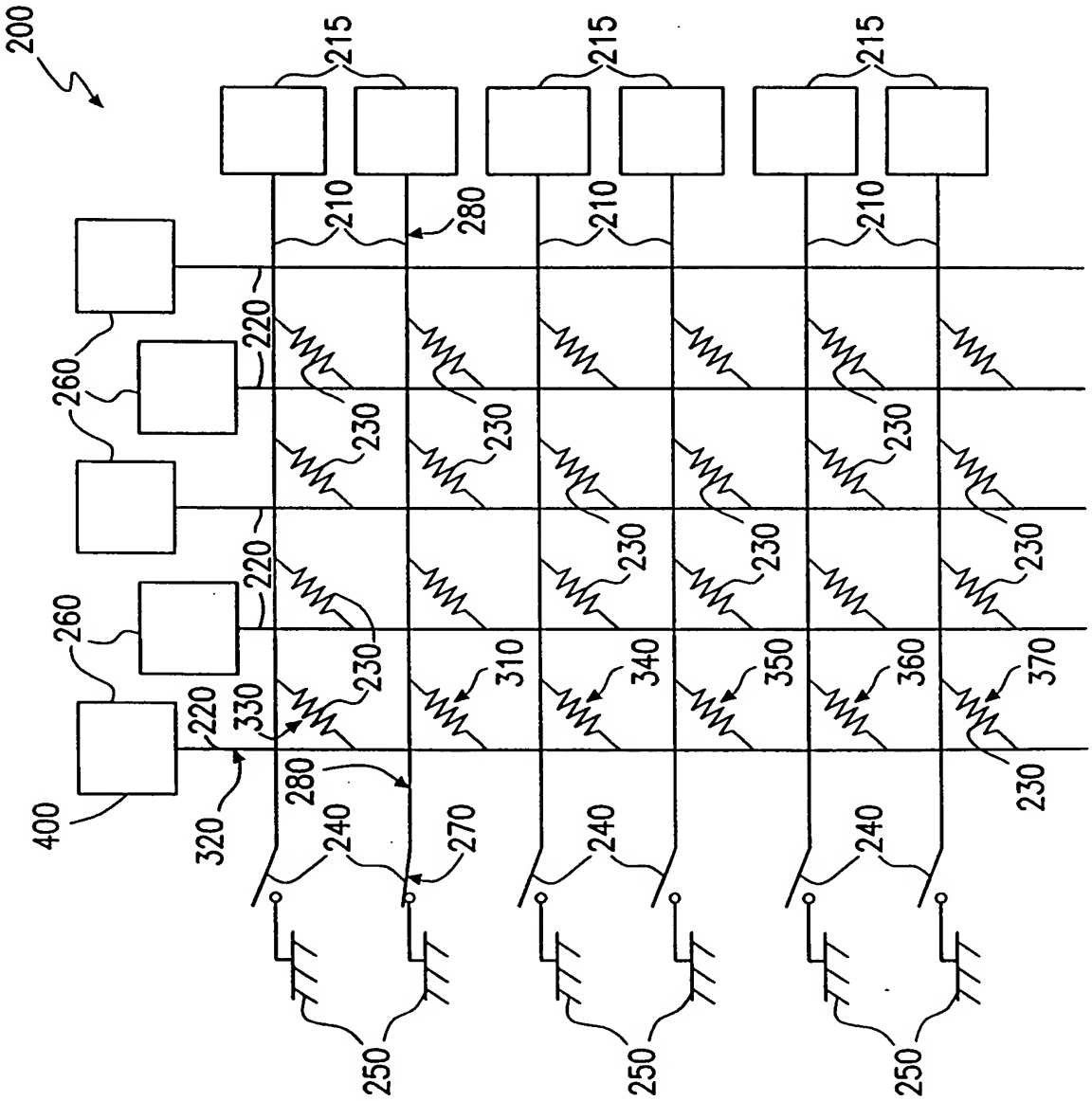

200
215
210
280
220
260
230
310
340
350
360
370
330
320
240
270
250
400

FIG. 2

FIG. 3

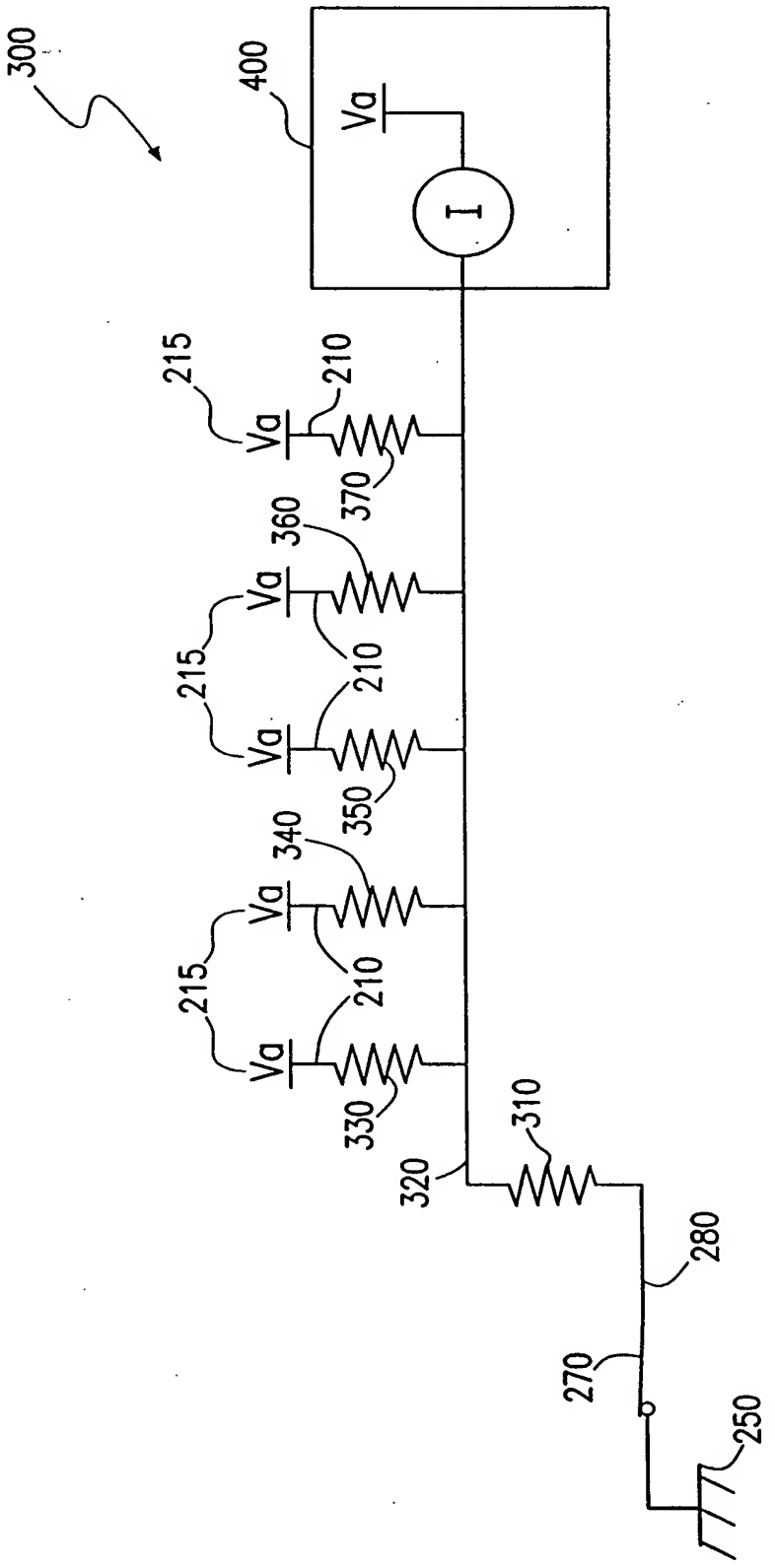


FIG. 4

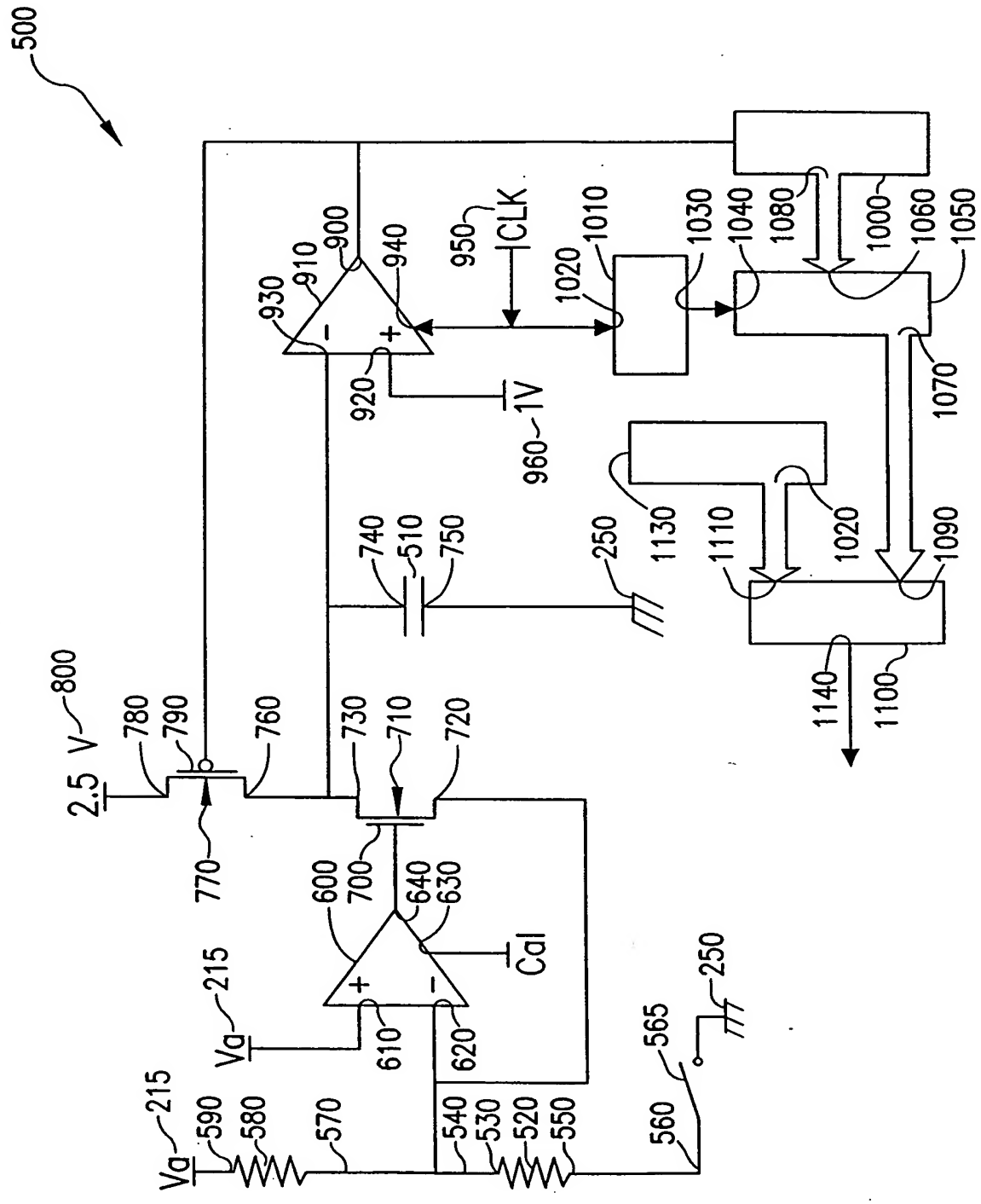

500
CLK
950
1V
960
920
930
910
900
940
1010
1020
1030
1040
1080
1000
1060
1050
1070
1130
1110
1020
1090
1140
1100
740
510
750
250
2.5 V
800
780
790
760
730
710
720
770
600
700
640
630
Cal
215
Va
610
620
565
560
590
580
570
540
530
520
550

FIG. 5

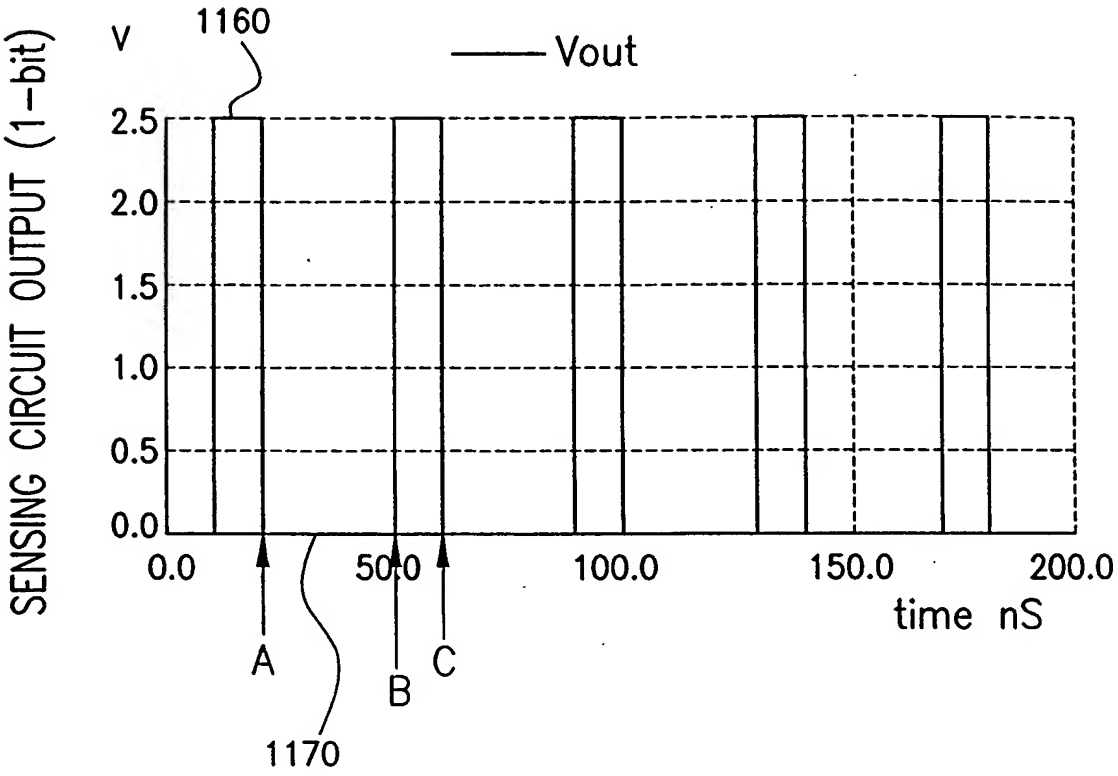

V
1160
Vout
SENSING CIRCUIT OUTPUT (1-bit)
2.5
2.0
1.5
1.0
0.5
0.0
0.0
50.0
100.0
150.0
200.0
time nS
A
B
C
1170

FIG. 6

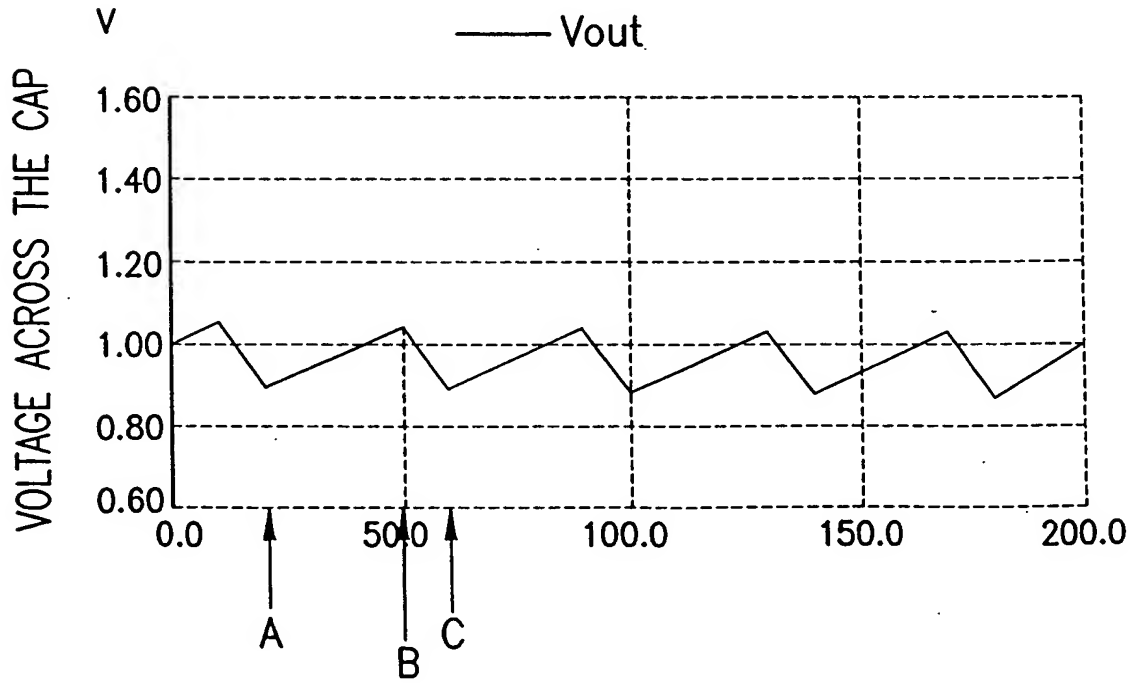
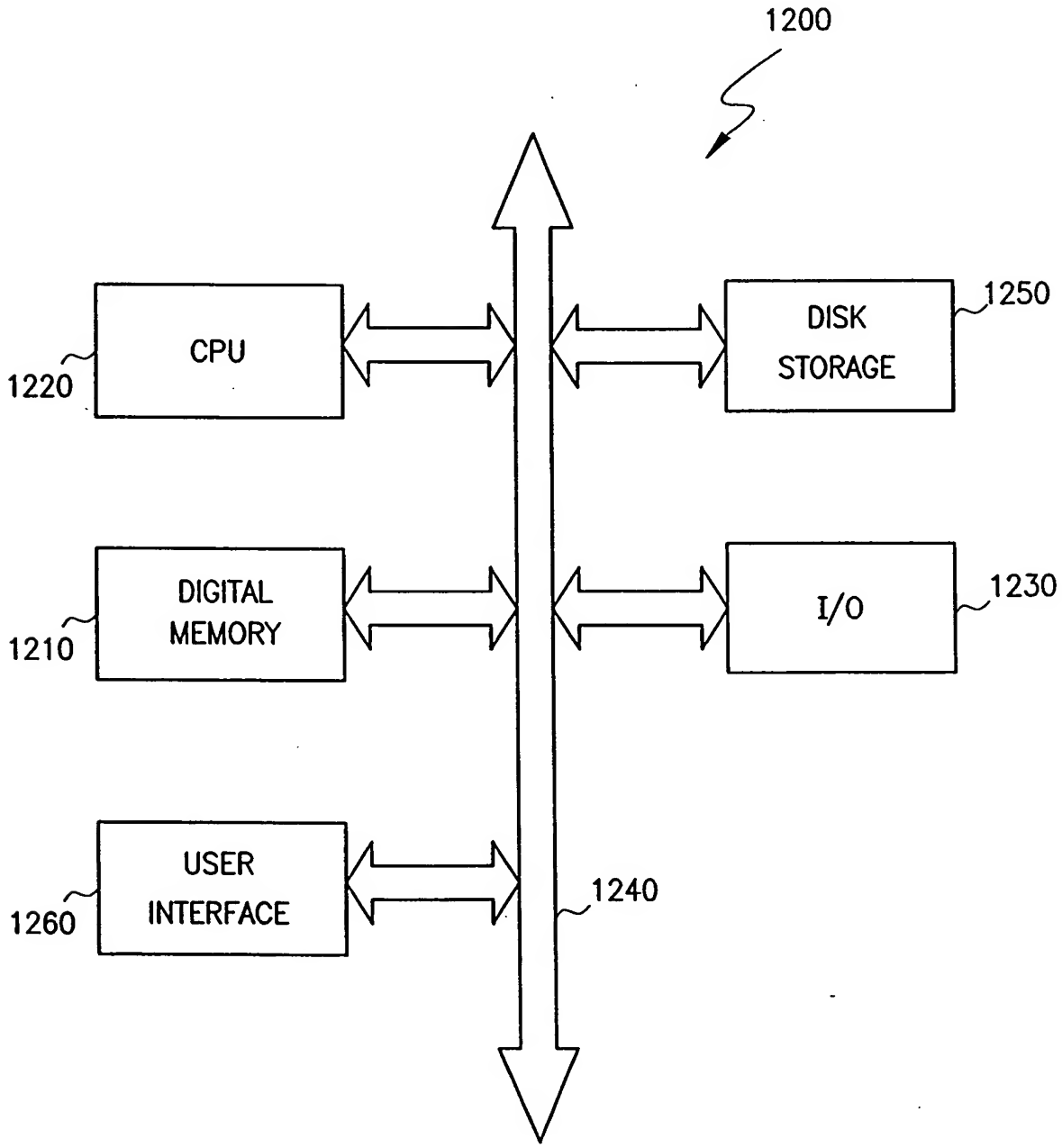

V
Vout
VOLTAGE ACROSS THE CAP
1.60
1.40
1.20
1.00
0.80
0.60
0.0
50.0
100.0
150.0
200.0
A
B
C

FIG. 7


1200
CPU
1220
DISK STORAGE
1250
DIGITAL MEMORY
1210
I/O
1230
USER INTERFACE
1260
1240